ABSTRACT OF THE DISCLOSURE

Amethod for processing a plasma processing apparatus having plasma generating means 3, 8, 10, 13 through 15 for generating plasma within a processing chamber, a high-frequency power applying means 18 for applying high-frequency power to an object 17 to be processed, a processing chamber 1 to which an evacuating device 7 is connected and capable of having its interior evacuated, and a gas supply device (not shown) for the processing chamber, wherein the method comprises mounting a Si wafer 17 on an electrode 4 for holding the object to be processed, introducing hydrobromic gas and chlorine gas into the processing chamber and generating plasma, and removing the aluminum-based deposit adhered to the interior of the processing chamber.